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WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION)
CIRA CENTRE, 12TH FLOOR
2929 ARCH STREET
PHILADELPHIA, PA 19104-2891

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| EXAMINER |
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STACE, BRENT S

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12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------------|--|
| Office Action Summary | Application No. 10/805,706 | Applicant(s) HURST-HILLER ET AL. | |
| | Examiner BRENT STACE | Art Unit 2161 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,8,10-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,8,10-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This communication is responsive to the Amendment filed September 30th, 2008. Claims 1-3, 5, 7, 8, 10-14, and 16-18 are pending. In the Amendment filed September 30th, 2008, Claims 1, 5, 10, 11, 14, and 18 are amended, Claims 4, 6, 9, 15 are canceled, and Claims 1, 5, 10, 11, 14, and 18 are independent claims. The examiner acknowledges that no new matter was introduced and the amended claims are supported by the specification. This action is made FINAL.

Response to Arguments

2. Applicant's arguments dated September 30th, 2008 with respect to Claims 1-3, 5, 7, 8, 10-14, and 16-18 have been considered but are moot in view of the new ground(s) of rejection.

3. Any other claims argued merely because of a dependency on a previously argued claim(s) in the arguments presented to the examiner, September 30th, 2008, are moot in view of the examiner's interpretation of the claims and art and are still considered rejected based on their respective rejections from prior Office action(s) (part(s) of recited below).

Claim Objections

4. Claims 2, 5, 10, 11 and 18 are objected to because of the following informalities:

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- a. Claim 2 recites the limitations "the speed," "the type," and "the language" in lines 3, 4, and 7, respectfully. There is insufficient antecedent basis for these limitations in the claim.
- b. Claim 5 recites "in light off" in the third and second to last lines. This appears to a typographical error.
- c. Claim 10 recites "using the the implicit user feedback" in the third to last line. The applicant may have intended to amend the claim as "using ~~the~~ the implicit user feedback data." This appears to a typographical error.
- d. Claim 11 recites the limitation "context data" in the second to last line. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 18 recites the limitation "said results" two times in lines 6-7. There is insufficient antecedent basis for this limitation in the claim.
- f. Claim 18 recites an extraneous "and" in line 17.
- g. Claim 18 recites "and receiving responses to said questions, the; and" in lines 23-26. This appears to a typographical error.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

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regards as the invention. Claim 18 recites "and/or" on line 8. The phrase "and/or" is unclear because it is not known if the applicant is claiming just "and," just "or," or "and" and "or."

Response to Amendment

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 1, 3, 5, 7, 8, 10, 11, 13, 14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,363,282 (Karnawat et al.) in view of U.S. Patent No. 6,507,841 (Riverieulx de Varax (herein: Riverieulx)).

For **Claim 1**, Karnawat teaches: “A method... which incorporates a browser for user interaction, [Karnawat, col. 6, lines 34-35] comprising:

- collecting user information; [Karnawat, col. 3, lines 10-12]
- detecting an event relating to an interaction of the user with the browser; [Karnawat, col. 6, lines 34-40]
- proving the event as input to a state machine, the state machine comprising a plurality of states, each state corresponding to a state of user interaction with the browser and a state transition function, [Karnawat, col. 6, lines 34-50 with Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] the state transition function mapping a first state and an event to a second state, whereupon the event causes a transition of the state machine from a current state to a new state based upon the event and the state transition function; [Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3]
- determining context information based upon the new state of the state machine; [Karnawat, col. 10, lines 5-14]
- determining implicit user feedback data based upon the transition from the current state to the new state, wherein the implicit user feedback data reflects user behavior during a search and includes user behavior while visiting a result list page, user behavior while exploring a hyperlink on a result list page, user

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behavior for visiting a result item page or result ignore behavior; [Karnawat, col. 10, lines 15-50]

- collecting explicit user feedback data [Karnawat, col. 10, lines 51-67] by:
 - identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user; [Karnawat, cols. 10-11, lines 56-20]
 - submitting one or more questions to the user regarding the non-selected search result and receiving explicit user feedback data to said questions, said questions prompting the user for explicit reasons why a non-selected a search result failed to correspond to a search request; [Karnawat, cols. 10-11, lines 56-20]
- utilizing the implicit feedback data, the explicit user feedback data in light of the context information to identify a problem with the search mechanism” [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32].

Karnawat discloses the above limitations but does not expressly teach: “...for improving performance of a search mechanism

- ...correcting the problem to improve performance of the search mechanism.”

With respect to Claim 1, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

- ...correcting the problem to improve performance of the search mechanism” [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-based and implicit/explicit user feedback data describing a search. However, Karnawat does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results to obtain better search results in the future (Riverieulx, abstract).

Claim 3 can be mapped to Karnawat (as modified by Riverieulx) as follows: "The method of claim 1, where said step of collecting said user information comprises:

- requesting said user information from said user; [Karnawat, col. 10, lines 51-67]
- and

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- accepting responses from said user” [Karnawat, col. 10, lines 51-67].

For **Claim 5**, Riverieulx teaches: “A method ...wherein the search mechanism includes a browser [Karnawat, col. 6, lines 34-35] based on context-based user feedback data, [Karnawat, col. 10, lines 5-14] said method comprising:

- monitoring of said search mechanism for user behavior data regarding an interaction of a user with the browser to detect an event; [Karnawat, col. 10, lines 15-50 with Karnawat, col. 6, lines 34-40]
- providing the event as input to a state machine, the state machine comprising a plurality of states, each state corresponding to a state of user interaction with the browser and a state transition function, [Karnawat, col. 6, lines 34-50 with Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] the state transition function mapping a first state and an event to a second state, whereupon the event causes a transition of the state machine from a current state to a new state based upon the event and the state transition function; [Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3]
- determining context information based upon the new state of the state machine; [Karnawat, col. 10, lines 5-14]
- determining implicit user feedback data based upon the transition from the current state to the new state, wherein the implicit user feedback data reflects user behavior during a search and includes user behavior while visiting a result list page, user behavior while exploring a hyperlink on a result list page, user

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behavior for visiting a result item page or result item ignore behavior; [Karnawat, col. 10, lines 15-50]

- determining if a snooze request specifying a time period to suspend collection of explicit feedback data is in effect from said user, and, if not, collecting explicit feedback data from the user” [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60]
- identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user; [Karnawat, cols. 10-11, lines 56-20]
- acquiring explicit user feedback data describing said search by submitting one or more questions to the user regarding explicit reasons why the non-selected search result failed to correspond to the search, [Karnawat, cols. 10-11, lines 56-20] said explicit user feedback data comprising information regarding an extent to which a search result corresponds to a search request; [Karnawat, cols. 10-11, lines 50-27]
- using the implicit user feedback data, the explicit user feedback data in light of the context information to identify a problem with the search mechanism; [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32] and”

Karnawat discloses the above limitations but does not expressly teach: “...for improving performance of a search mechanism

- ...correcting the problem to improve performance of the search mechanism.”

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With respect to Claim 5, an analogous art, Riverieulx, teaches: "...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

- ...correcting the problem to improve performance of the search mechanism"
[Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-based and implicit/explicit user feedback data describing a search. However, Karnawat does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter

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subsequent search results to obtain better search results in the future (Riverieulx, abstract).

Claim 7 can be mapped to Karnawat (as modified by Riverieulx) as follows: “The method of claim 5, where said step of determining if a snooze request is in effect from said user comprises:

- determining if said user has issued a snooze request; [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60] and
- determining if an associated time period associated with said snooze request has elapsed” [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60].

Claim 8 can be mapped to Karnawat (as modified by Riverieulx) as follows: “The method of claim 5, further comprising:

- storing target data concerning a target value for how often explicit feedback should be collected for searches; [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60] and
- allowing explicit feedback to be collected only if collecting the explicit feedback would not result in exceeding said target value for how often explicit feedback is collected” [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60].

For **Claim 10**, Karnawat teaches: “A method... based on context-based user feedback data, [Karnawat, col. 10, lines 5-14] said method comprising:

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- detecting an event relating to an interaction of the user and the browser;
[Karnawat, col. 6, lines 34-40]
- providing the event as input to a state machine, the state machine comprising a plurality of states, each state corresponding to a state of user interaction with the browser and a state transition function, [Karnawat, col. 6, lines 34-50 with Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] the state transition function mapping a first state and an event to a second state, whereupon the event causes a transition of the state machine from a current state to a new state based upon the event and the state transition function; [Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3]
- determining context information based upon the new state of the state machine; [Karnawat, col. 10, lines 5-14]
- determining implicit user feedback data based upon the transition from the current state to the new state, wherein the implicit user feedback data reflects user behavior during a search and includes user behavior while visiting a result list page, user behavior while exploring a hyperlink on a result list page, user behavior for visiting a results item page or result item ignore behavior; [Karnawat, col. 10, lines 15-50]
- identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user; [Karnawat, cols. 10-11, lines 56-20]

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- acquiring explicit user feedback data [Karnawat, col. 10, lines 51-67] by submitting one or more questions to the user regarding why the non-selected search result failed to correspond to the search and receiving responses to said questions; [Karnawat, cols. 10-11, lines 56-20]
- using the the implicit user feedback, the explicit user feedback data in light of the context information to identify a problem with the search mechanism” [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32].

Karnawat discloses the above limitations but does not expressly teach: “...for improving performance of a search mechanism

- ...correcting the problem to improve performance of the search mechanism.”

With respect to Claim 10, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

- ...correcting the problem to improve performance of the search mechanism” [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-

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based and implicit/explicit user feedback data describing a search. However, Karnawat does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results to obtain better search results in the future (Riverieulx, abstract).

For **Claim 11**, Karnawat teaches: “A system ... based on context-based user feedback data, [Karnawat, col. 10, lines 5-14] said system comprising:

- a user information collector for collecting user information from a user having access to said search mechanism; [Karnawat, col. 3, lines 10-12]
- a user behavior monitor for monitoring of said search mechanism for raw user behavior data regarding an interaction of said user with said search mechanism to perform a search; [Karnawat, col. 10, lines 15-50]
- a state machine for conversion of the raw user behavior data into interpreted user behavior data and for generating context information, [Karnawat, col. 6, lines 34-50 with Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] wherein the

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context information corresponds to a current state of the state machine;

[Karnawat, col. 10, lines 5-14]

- an explicit user feedback data accumulator for identifying at least on non-selected search results that is generated by the search mechanism as part of said search but that is not selected by the user, [Karnawat, cols. 10-11, lines 56-20] the explicit user feedback data accumulator further for acquiring explicit user feedback data describing said search by submitting one or more questions to said user regarding explicit reasons why the non-selected search result failed to correspond to the search and receiving responses to said questions, [Karnawat, cols. 10-11, lines 56-20] said questions prompting said user for information regarding an extent to which a search result corresponds to a search request; [Karnawat, cols. 10-11, lines 50-27] and
- an analysis component for using the explicit user feedback data in light of the context data to identify a problem with the search mechanism” [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32].

Karnawat discloses the above limitations but does not explicitly teach: “...for improving performance of a search mechanism

- ...to improve the performance of the search mechanism by correcting the problem.”

With respect to Claim 11, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

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- ...to improve the performance of the search mechanism by correcting the problem” [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-based and implicit/explicit user feedback data describing a search. However, Karnawat does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results to obtain better search results in the future (Riverieulx, abstract).

Claim 13's limitation(s) have already been met by Claim 3's limitation(s).

Therefore, Claim 13 is rejected for the same reason(s) as stated above with respect to Claim 3.

For **Claim 14**, Karnawat teaches: "A system ... based on context-based user feedback data, [Karnawat, col. 10, lines 5-14] said system comprising:

- user behavior monitor for monitoring of said search mechanism for user behavior data regarding an interaction of a user having access to said search mechanism for user behavior data regarding an interaction of a user having access to said search mechanism with said search mechanism to perform a search; [Karnawat, col. 10, lines 15-50]
- context monitor for monitoring said search mechanism for search mechanism response data regarding said search; [Karnawat, col. 10, lines 5-14]
- explicit feedback collection mechanism [Karnawat, cols. 10-11, lines 56-20] for making a determination of whether a snooze request specifying a time period to suspend collection of explicit feedback data is in effect from said user, and, if not, collecting explicit feedback data from said user, [Karnawat, col. 8, lines 54-67 with Karnawat, col. 9, lines 1-25 with Karnawat, col. 9, lines 49-60]
- an explicit user feedback data accumulator for identifying at least one non-selected search result that is generated by the search mechanism as part of said search but that is not selected by the user, [Karnawat, cols. 10-11, lines 56-20] the explicit user feedback data accumulator further for acquiring explicit user feedback data describing said search by submitting one or more questions to the

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user regarding the non-selected search result, said explicit user feedback data comprising information regarding explicit reasons why a search result failed to correspond to a search request; [Karnawat, cols. 10-11, lines 56-27] and

- an analysis component for using the explicit user feedback data in light of context data to identify a problem with the search mechanism and” [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32].

Karnawat discloses the above limitations but does not explicitly teach: “...for improving performance of a search mechanism

- ...to improve the performance of the search mechanism by correcting the problem.”

With respect to Claim 14, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

- ...to improve the performance of the search mechanism by correcting the problem” [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-

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based and implicit/explicit user feedback data describing a search. However, Karnawat does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results to obtain better search results in the future (Riverieulx, abstract).

Claims 16 and 17 encompass substantially the same scope of the invention as that of Claims 7 and 8, respectfully, in addition to a system and some elements for performing the method steps of Claims 7 and 8, respectfully. Therefore, Claims 16 and 17 are rejected for the same reasons as stated above with respect to Claims 7 and 8, respectfully.

For **Claim 18**, Karnawat teaches: "A system ... based on context-based user feedback data, [Karnawat, col. 10, lines 5-14] said system comprising:

- user behavior monitor for monitoring of said search mechanism for user behavior data regarding an interaction of a user having access to said search mechanism with said search mechanism to perform a search, said user behavior data comprising data concerning requery performed by said user, dwell time on said

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results page, click time on said results page, position of results clicked, more results requested by said user, results dwell time, result page size, and/or results page actions; [Karnawat, col. 10, lines 15-50]

- a context monitor for monitoring said search mechanism wherein the context monitor comprises a state machine, [Karnawat, col. 6, lines 34-48 with Karnawat, col. 10, lines 5-14] the state machine comprising a plurality of states, each state corresponding to a state of user interaction with the search mechanism and a state transition function, [Karnawat, col. 6, lines 34-50 with Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] the state transition function mapping a first state and an event to a second state, whereupon an event generated by user interaction with the search mechanism causes a transition of the state machine from a current state to a new state based upon the event and the state transition function, [Karnawat, col. 8, lines 35-53 with Karnawat, Fig. 3] wherein the context monitor determines context information based upon the new state of the state machine; [Karnawat, col. 10, lines 5-14] and
- an explicit user feedback data accumulator for identifying a least one non-selected search result that is generated by the search mechanism as part of said search bust that is not selected by the user, [Karnawat, cols. 10-11, lines 56-20] the explicit user feedback data accumulator further fur acquiring explicit user feedback data describing said search by submitting one or more questions to said user regarding explicit reasons why the non-selected search result failed to

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correspond to the search and receiving responses to said questions, [Karnawat, cols. 10-11, lines 56-20] the; and

- an analysis component for using the explicit user feedback data in light of the context data to identify a problem with the search mechanism [Karnawat, col. 2, lines 46-50 with Karnawat, col. 11, lines 28-32] and.”

Karnawat discloses the above limitations but does not explicitly teach: “...for improving performance of a search mechanism

- ... to improve the performance of the search mechanism by correcting the problem.”

With respect to Claim 18, an analogous art, Riverieulx, teaches: “...for improving performance of a search mechanism [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37]

- ... to improve the performance of the search mechanism by correcting the problem” [Riverieulx, abstract with Riverieulx, col. 4, lines 23-37].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to combine Riverieulx with Karnawat because the inventions are directed towards using and searching for information in databases that use user data.

Riverieulx's invention would have been expected to successfully work well with Karnawat's invention because the inventions use databases using user data. Karnawat discloses a search system using behavior data (title) comprising acquiring of context-based and implicit/explicit user feedback data describing a search. However, Karnawat

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does not expressly disclose that the information can be used to improve/correct performance/problems with a search mechanism. Riverieulx discloses methods of and an apparatus for refining descriptors (title) comprising corrective actions for improvement of a search engine/mechanism.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Riverieulx and Karnawat before him/her to take the corrective procedures from Riverieulx and install them into the teachings of Karnawat, thereby offering the obvious advantage of making refined descriptors to alter subsequent search results to obtain better search results in the future (Riverieulx, abstract).

10. Claims 2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,363,282 (Karnawat et al.) in view of U.S. Patent No. 6,507,841 (Riverieulx de Varax (herein: Riverieulx)), further in view of U.S. Patent Application Publication No. 2002/0107843 (Biebesheimer et al.).

For **Claim 2**, Karnawat (as modified by Riverieulx) teaches: “The method of claim 1, where said user information comprises one or more of the following”

Karnawat (as modified by Riverieulx) discloses the above limitation but does not explicitly teach:

- “...the speed of said user's connection to said search mechanism;
- the type of said user's connection to said search mechanism;
- a classification of said user's use of said search mechanism;

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- background information concerning said user; or
- the language which said user is using to perform said search.”

With respect to Claim 2, an analogous art, Biebesheimer, teaches:

- “...the speed of said user's connection to said search mechanism;
[Biebesheimer, paragraph [0036]]
- the type of said user's connection to said search mechanism; [Biebesheimer, paragraph [0073]]
- a classification of said user's use of said search mechanism; [Biebesheimer, paragraph [0030] with Biebesheimer, paragraph [0073]]
- background information concerning said user; [Biebesheimer, paragraph [0030]]
or
- the language which said user is using to perform said search” [Biebesheimer, paragraph [0073]].

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Biebesheimer and Karnawat (as modified by Riverieulx) before him/her to combine Biebesheimer with Karnawat (as modified by Riverieulx) because both inventions are directed towards searching data.

Biebesheimer's invention would have been expected to successfully work well with Karnawat (as modified by Riverieulx)'s invention because both inventions use search routines. Karnawat (as modified by Riverieulx) discloses a search system using user behavior (title) comprising acquiring of context-based and implicit/explicit user feedback data describing a search and correcting the search mechanism to improve

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upon it. However, Karnawat (as modified by Riverieulx) does not expressly disclose the user information above. Biebesheimer discloses a customer self service subsystem for classifying user context comprising user information of speed of connection, type of connection, classification of the user, and language of the user.

It would have been obvious to one of ordinary skill in the art at the time of invention having the teachings of Biebesheimer and Karnawat (as modified by Riverieulx) before him/her to take the user information from Biebesheimer and install it into the teachings of Karnawat (as modified by Riverieulx), thereby offering the obvious advantage of including a user context with the query to improve the results of the query (Biebesheimer, paragraph [0027]).

Claim 12's limitation(s) have already been met by Claim 2's limitation(s).

Therefore, Claim 12 is rejected for the same reason(s) as stated above with respect to Claim 2.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

12. Any prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is advised that, although not used in the rejections above, prior art cited on any PTO-892 form and not relied upon is considered materially relevant to the applicant's claimed invention and/or portions of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent S. Stace whose telephone number is 571-272-8372 and fax number is 571-273-8372. The examiner can normally be reached on M-F 9am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu M. Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/B. S./
Examiner, Art Unit 2161

/Apu M Mofiz/
Supervisory Patent Examiner, Art Unit 2161